

FORM PTO-1449

U.S. Dept. of Commerce
Patent and Trademark OfficeAtty Docket No.
P1732R1Serial No.
10/080866

LIST OF DISCLOSURES CITED BY APPLICANT

Applicant
Paegle et al.Filing Date
22 Feb 2002Group
1633

JUN 24 2005 (Use several sheets if necessary)

ALL OF RECORD IN IDS FILED 5/20/02/INITIALED 3/14/05

U.S. PATENT DOCUMENTS PROVIDED FOR CLARITY

Examiner Initials		Document Number	Date	Name	Class	Subclass	Filing Date
	1	4,578,355	25.03.86	ROSENBERG	435	317	
	2	5,162,217	10.11.92	HARTMAN ET AL.	435	189	
	3	5,256,546	26.10.93	AVIV ET AL.	435	694	
	4	5,354,846	11.10.94	KEHOE	530	350	
	5	5,374,520	20.12.94	MILMAN	435	5	
	6	5,401,658	28.03.95	FIERI ET AL.	435	352.33	
	7	5,618,715	08.04.97	SHOYAB ET AL.	435	355	
	8	5,834,184	10.11.98	HARADA ET AL.	435	6	

FOREIGN PATENT DOCUMENTS

Examiner Initials		Document Number	Date	Country	Class	Subclass	Translation Yes	No
	9	131,843	23.01.85	EP				
	10	314,184	03.05.89	EP				
	11	467,676	22.01.92	EP				
	12	691,406	10.01.96	EP				
	13	700,997	13.03.96	EP				
	14	838,525	29.04.98	EP				
	15	893,502	27.01.99	EP				
	16	9,059,299	04.03.97	JP (ENGLISH ABSTRACT ONLY)				
	17	WO 85/02624	20.06.85	PCT				
	18	WO 85/04418	10.10.85	PCT				
	19	WO 88/06628	07.09.88	PCT				
	20	WO 89/03886	05.05.89	PCT				

OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages, etc.)

21	Beck et al., "Efficient Production of Active Human Manganese Superoxide Dismutase in Escherichia coli." <u>Biotechnology</u> , 6:930-935 (Aug 1988)
22	Bielawski et al., "Construction of a DNA-Polymerase I Overproducing Plasmid and Isolation of the Enzyme." <u>Acta Biochim. Pol.</u> 34(1):29-34 (1987)
23	Borukhov and Goldfarb., "Purification and Assay of Escherichia coli Transcript Cleavage Factors GreA and GreB." <u>Meth. Enzymol.</u> 274:315-326 (1996)
24	Borukhov et al., "GreA Protein: A Transcription Elongation Factor From Escherichia coli." <u>Proc. Natl. Acad. Sci. USA</u> 89:8899-8902 (Oct 1992)
25	Borukhov et al., "Transcript Cleavage Factors from E. coli." <u>Cell</u> , 72:459-466 (Feb 1993)
26	Chauhan and Apirion., "The Gene for a Small Stable RNA (10Sa RNA) of Escherichia coli." <u>Molecular Microbiology</u> , 3(11):1481-1485 (1989)
27	Darst et al., "Crystallization of GreA, A Transcript Cleavage Factor From Escherichia coli." <u>J. Mol. Biol.</u> 242:582-585 (1994)

Examiner

Date Considered

9/18/05

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449

LIST OF DISCLOSURES CITED BY APPLICANT

(Use several sheets if necessary)

ALL OF RECORD IN 5/20/02 IDS / PROVIDED FOR CLARITY

USPTO
Dept. of Commerce
Patent and Trademark Office

JUN 24 2005

Atty Docket No.

P1732R1

Serial No.

10/080866

Applicant

Paegle et al.

Filing Date

22 Feb 2002

Group

1633

OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages, etc.)

- | | |
|----|--|
| 28 | Das., "Transcription Antitermination by Lambda N Gene Product in a Well Defined Plasmid System." <u>Fed. Proc.</u> (72nd Annual Mtg. Amer. Soc. Bio. Chem. - Abstract 1291) 40(6):1764 (May 31-June 4 1981) |
| 29 | Erie et al., "Multiple RNA Polymerase Conformations and GreA: Control of the Fidelity of Transcription." <u>Science</u> . 262:867-873 (1993) |
| 30 | Feng et al., "GreA-Induced Transcript Cleavage in Transcription Complexes Containing Escherichia coli RNA Polymerase Is Controlled by Multiple Factors, Including Nascent Transcript Location and Structure." <u>J. Bio. Chem.</u> 269:22282-22294 (1994) |
| 31 | Feng et al., "Interactions Between RNA Polymerase and Transcript Affect GreA- And Gre-B-Mediated Reverse Translocation." <u>J. Cell. Biochem. Suppl.</u> (Abstract L408)18C:58 (1994) |
| 32 | Franklin and Bennett., "The N Protein of Bacteriophage Lambda, Defined by its DNA Sequence, is Highly Basic." <u>Gene</u> . 8:107-119 (1979) |
| 33 | Franklin., "N Transcription Antitermination Proteins of Bacteriophages λ , ϕ 21 and ϕ 22." <u>J. Mol. Bio.</u> 181:85-91 (1985) |
| 34 | Franklin., "Clustered Arginine Residues of Bacteriophage λ N Protein are Essential to Antitermination of Transcription, but Their Locale Cannot Compensate for boxB Loop Defects." <u>J. Mol. Bio.</u> 231:343-360 (1993) |
| 35 | Franklin., "Conservation of Genome Form but not Sequence in the Transcription Antitermination Determinants of Bacteriophages λ , ϕ 21 and ϕ 22." <u>J. Mol. Bio.</u> 181:75-84 (1984) |
| 36 | Friedman and Olson., "Evidence that a Nucleotide Sequence, "boxA," Is Involved in the Action of the NusA Protein." <u>Cell</u> . 34:143-149 (1983) |
| 37 | Friedman et al., "Transcription-Dependent Competition for a Host Factor: The Function and Optimal Sequence of the Phage λ boxA Transcription Antitermination Signal." <u>Genes Dev.</u> 4:2210-2222 (1990) |
| 38 | Garcia et al., "The E. coli dnaY Gene Encodes an Arginine Transfer RNA." <u>Cell</u> . 45:453-459 (1986) |
| 39 | Gatenby and Castleton., "Amplification of Major Ribulose Biphosphate Carboxylase Large Subunit Synthesis in E. coli by Transcriptional Fusion with the Lambda N Operon." <u>Mol. Gen. Genet.</u> 185:424-429 (1982) |
| 40 | Greenblatt et al., "Transcriptional Antitermination." <u>Nature</u> . 364:401-406 (Jul 1993) |
| 41 | Gu et al., "Nascent RNA Cleavage by Arrested RNA Polymerase II Does Not Require Upstream Translocation of the Elongation Complex on DNA." <u>J. Bio. Chem.</u> 268:25604-25616 (1993) |
| 42 | Guo and Price., "Mechanism of Dms-II-Mediated Pause Suppression by Drosophila RNA Polymerase II." <u>J. Bio. Chem.</u> 268:18762-18770 (1993) |
| 43 | Horiuchi et al., "Effects of pH on Expression and Stabilization of β -Galactosidase by Recombinant E. coli with a Thermally-Inducible Expression System." <u>Biotechnology Lett.</u> 16:113-118 (1994) |
| 44 | Hsu et al., "Escherichia coli Transcript Cleavage Factors GreA and GreB Stimulate Promoter Escape and Gene Expression In Vivo and In Vitro." <u>Proc. Natl. Acad. Sci. USA</u> 92:11588-11592 (1995) |
| 45 | Hwang et al., "High Level Expression of Porcine Growth Hormone in Escherichia coli From an Expression Vector Containing Bacteriophage λ P _L and N Gene Untranslated Region." <u>Biochem. & Biophys. Res. Comm.</u> 173:711-717 (1990) |
| 46 | Izban and Luse., "Factor-Stimulated RNA Polymerase II Transcribes at Physiological Elongation Rates on Naked DNA but Very Poorly on Chromatin Templates." <u>J. Bio. Chem.</u> 267(19):13647-13655 (1992) |
| 47 | Izban and Luse., "SII-Facilitated Transcript Cleavage in RNA Polymerase II Complexes Stalled Early After Initiation Occurs in Primarily Dinucleotide Increments." <u>J. Bio. Chem.</u> 268(17):12864-12873 (1993) |

Examiner

Date Considered

9/12/05

*Examiner: Initial reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449

LIST OF DISCLOSURES CITED BY APPLICANT

(Use several sheets if necessary)

ALL OF RECORD IN 5/20/02 105X PROVIDED FOR CLARITY

U.S. Dept. of Commerce
Patent and Trademark Office

JUN 24 2005

Atty Docket No.

P1732R1

Serial No.

10/080866

Applicant

Paegle et al.

Filing Date

22 Feb 2002

Group

1633

OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages, etc.)

- | | |
|----|---|
| 48 | Izban and Luse., "The Increment of SII-Facilitated Transcript Cleavage Varies Dramatically Between Elongation Competent and Incompetent RNA Polymerase II Ternary Complexes." <u>J. Bio. Chem.</u> 268(17):12874-12885 (Jun 1993) |
| 49 | Izban and Luse., "The RNA Polymerase II Ternary Complex Cleaves the Nascent Transcript in a 3'→5' Direction in the Presence of Elongation Factor SII." <u>Genes & Development</u> 6:1342-1356 (1992) |
| 50 | Kamasawa et al., "Optimization of β -Galactosidase Production by Recombinant E. coli with Thermo-Inducible Expression System." <u>IFAC Symp. Ser.</u> 10:255-258 (1992) |
| 51 | Kassavetis and Gelduschek., "RNA Polymerase Marching Backward." <u>Science</u> . 259:944-945 (Feb 1993) |
| 52 | Keller et al., "Role of a Peptide Tagging System in Degradation of Proteins Synthesized from Damaged Messenger RNA." <u>Science</u> . 271:990-993 (Feb 1996) |
| 53 | Koullich et al., "Distinct Function on N and C-Terminal Domains of GreA, and Escherichia coli Transcript Cleavage Factor." <u>J. Mol. Bio.</u> 276:379-389 (1998) |
| 54 | Koullich et al., "Domain Organization of Escherichia coli Transcript cleavage Factors GreA and GreB." <u>J. Bio. Chem.</u> 272(11):7201-7210 (Mar 1997) |
| 55 | Kovgan et al., "Cloning and Expression of the HTLV-III Virus Surface Protein Gene in E. coli." <u>Vopr. Virusol.</u> (English Abstract Included) 31:485-489 (1986) |
| 56 | Lazinski et al., "Sequence-Specific Recognition of RNA Hairpins by Bacteriophage Antiterminators Requires a Conserved Arginine-Rich Motif." <u>Cell</u> . 59:207-218 (Oct 1989) |
| 57 | Lee et al., "GreA-Induced Transcript Cleavage Is Accompanied by Reverse Translocation to a Different Transcription Complex Conformation." <u>J. Bio. Chem.</u> 269(35):22295-22303 (1994) |
| 58 | Li et al., "Antitermination of E. coli rRNA Transcription Is Caused by a Control Region Segment Containing Lambda nut-Like Sequences." <u>Cell</u> . 38:851-860 (Oct 1984) |
| 59 | Lu et al., "Identification of greA Encoding a Transcriptional Elongation Factor as a Member of the carA-orf-carB-greA Operon in Pseudomonas aeruginosa PAO1." <u>J. Bacteriology</u> . 179:3043-3046 (1997) |
| 60 | Makrides., "Strategies for Achieving High-Level Expression of Genes in Escherichia coli." <u>Microbiol. Rev.</u> 60(3):512-538 (1996) |
| 61 | Marks and Wood., "Nucleotide Sequence of the Rickettsia prowazekii greA Homolog." <u>Nucleic Acids Research</u> . 20(14):3785 (1992) |
| 62 | Martin-Gallardo et al., "Expression of the G Glycoprotein Gene of Human Respiratory Syncytial Virus in Salmonella Typhimurium." <u>J. Gen. Virol.</u> 74:453-458 (1993) |
| 63 | Mertens et al., "Tight Transcriptional Control Mechanism Ensures Stable High-Level Expression from T7 Promoter-Based Expression Plasmids." <u>Biotechnology</u> . 13:175-179 (Feb 1995) |
| 64 | Mogridge et al., "Involvement of boxA Nucleotides in the Formation of a Stable Ribonucleoprotein Complex Containing the Bacteriophage λ N Protein." <u>J. Bio. Chem.</u> 273(7):4143-4148 (1998) |
| 65 | Mote and Reines., "Recognition of a Human Arrest Site Is Conserved Between RNA Polymerase II and Prokaryotic RNA Polymerases." <u>J. Bio. Chem.</u> 273(27):16843-16852 (1998) |
| 66 | Olson et al., "Analysis of nutR: A Region of Phage Lambda Required for Antitermination of Transcription." <u>Cell</u> . 31:61-70 (Nov 1982) |
| 67 | Orlova et al., "Intrinsic Transcript Cleavage Activity of RNA Polymerase." <u>Proc. Natl. Acad. Sci. USA</u> 92:4596-4600 (May 1995) |

Examiner

Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449

U.S. Dept. of Commerce
Patent and Trademark OfficeAtty Docket No.
P1732R1Serial No.
10/080866

LIST OF DISCLOSURES CITED BY APPLICANT

(Use several sheets if necessary)

ALL OF RECORD IN 5/20/02 INS PROVIDED FOR CLARITY

Applicant
Paegle et al.Filing Date
22 Feb 2002Group
1633

OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages, etc.)

- | | |
|----|--|
| 68 | Patterson et al., "Bacteriophage Lambda N-Dependent Transcription Antitermination: Competition for an RNA Site May Regulate Antitermination." <u>J. Mol. Bio.</u> 236:217-228 (1994) |
| 69 | Polyakov et al., "Visualization of the Binding Site for the Transcript Cleavage Factor GreB on Escherichia coli RNA Polymerase." <u>J. Mol. Bio.</u> 281:465-473 (1998) |
| 70 | Rees et al., "Bacteriophage λ N Protein Alone Can Induce Transcription Antitermination In Vitro." <u>Proc. Natl. Acad. Sci. USA</u> 93:342-346 (Jan 1996) |
| 71 | Reines et al., "Transcription Elongation Factor SII (TFIIS) Enables RNA Polymerase II to Elongate Through a Block to Transcription in a Human Gene In Vitro." <u>J. Bio. Chem.</u> 264(18):10799-10809 (Jun 1989) |
| 72 | Reines., "Elongation Factor-Dependent Transcript Shortening by Template-Engaged RNA Polymerase II." <u>J. Bio. Chem.</u> 267(16):3795-3800 (Feb 1992) |
| 73 | Schauer et al., "A N Antitermination System: Functional Analysis of Phage Interactions with the Host NusA Protein." <u>J. Mol. Bio.</u> 194:679-690 (1987) |
| 74 | Sluder et al., "Properties of a Drosophila RNA Polymerase II Elongation Factor." <u>J. Bio. Chem.</u> 264(15):8963-8969 (May 1989) |
| 75 | Stanssens et al., "Inefficient Translation Initiation Causes Premature Transcription Termination in the lacZ Gene." <u>Cell</u> 44:711-718 (Mar 1986) |
| 76 | Stebbins et al., "Crystal Structure of the GreA Transcript Cleavage Factor From Escherichia coli." <u>Nature</u> 373(16):636-640 (Feb 1995) |
| 77 | Surratt et al., "Spontaneous Cleavage of RNA in Ternary Complexes of Escherichia coli RNA Polymerase and its Significance for the Mechanism of Transcription." <u>Proc. Natl. Acad. Sci. USA</u> 88:7983-7987 (Sep 1991) |
| 78 | Tu et al., "C-Terminal Extension of Truncated Recombinant Proteins in Escherichia coli with a 10Sa RNA Decapeptide." <u>J. Bio. Chem.</u> 270(16):9322-9326 (Apr 1995) |
| 79 | Wang and Hawley., "Identification of a 3' -> 5' Exonuclease Activity Associated with Human RNA Polymerase II." <u>Proc. Natl. Acad. Sci. USA</u> 90:843-847 (Feb 1993) |
| 80 | Weisberg and Gottesman., "Processive Antitermination." <u>J. Bacteriol.</u> 181(2):359-367 (Jan 1999) |
| 81 | Zhukovskaya et al., "Inactive O ⁶ -Methylguanine-DNA Methyltransferase in Human Cells." <u>Nucleic Acids Research</u> 20(22):6081-6090 (1992) |

Examiner

Date Considered

9/12/05

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

